

ABSTRACT

A micro-beam friction liner adapted to increase performance and efficiency and reduce wear in a piezoelectric motor or actuator or other device using a traveling or standing wave to transfer energy in the form of torque and momentum. The micro-beam friction liner comprises a dense array of micro-beam projections having first ends fixed relative to a rotor and second ends projecting substantially toward a plurality of teeth of a stator, wherein the micro-beam projections are compressed and bent during piezoelectric movement of the stator teeth, thereby storing the energy, and then react against the stator teeth to convert the stored energy stored to rotational energy in the rotor.